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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,462	10/12/2001	Akira Matsumoto	939_030	9975

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BURR & BROWN
PO BOX 7068
SYRACUSE, NY 13261-7068

EXAMINER

LAVARIAS, ARNEL C

ART UNIT PAPER NUMBER

2872

DATE MAILED: 06/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/976,462

Applicant(s)

MATSUMOTO ET AL.

Examiner

Arnel C. Lavarias

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 13.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Arguments

1. The Applicants argue that Hirai et al. fails to teach or reasonably suggest a peripheral adhesive disposed around the stripped fiber wherein an end face of the peripheral adhesive is recessed no more than 10 microns with respect to an end face of the fiber. As per the Interview conducted with the Applicants' representative on 4/30/03 (See Paper No. 13), the Examiner agrees and respectfully withdraws the rejections to Claims 1-11 in Sections 10-12 in Paper No. 12, dated 2/19/03.
2. Further, with respect to Claims 2, 4, 10-11, the Applicants argue that Hirai et al. and Ichiki et al. fails to teach or reasonably suggest, either singly or in combination, the recess depth x that the end face of the peripheral adhesive is recessed with respect to the end face of the fiber being related to a water absorption ratio ϕ of the peripheral adhesive and a length L over which the optical fiber is adhered to the V-groove by the equation $x = \frac{0.1\phi L}{2}$. The Examiner agrees and respectfully withdraws the rejections to these claims.
3. Claims 1, 3, and 5-9 are rejected as follows.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3, 5-6, and 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Seino et al.

Seino et al. discloses a fiber array embodiment (See for example the embodiment of Figure 28) housing a stripped fiber (See 1 in Figure 28) in a V-groove (See V-grooves in substrate 14 in Figure 28) of a V-groove substrate (See 14 Figure 28) comprising a fiber fixing substrate fixing the stripped fiber (See 17 in Figure 28); and a peripheral adhesive (See 16 in Figure 28) disposed around the stripped fiber, wherein an end face of the peripheral adhesive is recessed with respect to an end face of the fiber (See Figure 28) such that the peripheral adhesive is recessed at least 0.1 microns and no more than 10 microns with respect to an end face of the fiber and the face of the fiber is flush or protrudes from the end face of the fiber array (See in particular Figure 28(E); col. 3, line 24-col. 4, line 8; col. 12, line 13-col. 13, line 7). Seino et al. also discloses an optical device being connected or fixed to the fiber array (See for example Figure 8).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seino et al. in view of Hirai et al.

Seino et al. discloses the invention as set forth above in Claim 1, except for the peripheral adhesive having a Young's modulus of at least 0.03 GPa. However, Hirai et al. teaches a fiber array (See Figures 8 or 9) housing a stripped fiber (See 10 in Figures 8 or 9) in a V-groove, wherein the fiber is attached to the various parts of the substrate with an adhesive having a Young's modulus of at least 0.03 GPa (or 3.059 kgf/mm²) (See Table 1 on Page 9). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the peripheral adhesive of Seino et al. have a Young's modulus of at least 0.03 GPa, as taught by Hirai et al., for the purpose of reducing or eliminating component deformations due to variations in temperature, while maintaining adhesive bonding properties.

Allowable Subject Matter

8. Claims 2, 4, 10, and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. Claims 2 and 4 are allowed. See Section 13 of Paper No. 8, dated 10/22/02. Claims 10 and 11 are allowable over the cited art of record for the same reasons that Claims 2 and 4 are allowable over the cited art of record.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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JP 08-292345A to Kako.

Kako is being cited to evidence the use of peripheral adhesives (See 7 in Figure 1) in fiber array arrangements, wherein the end face of the peripheral adhesive is recessed with respect to an end face (See 6 in Figure 1) of the fiber such that the face of the fiber protrudes from the end face of the fiber array. Kako lacks the peripheral adhesive being recessed no more than 10 microns with respect to the end face of the fiber.

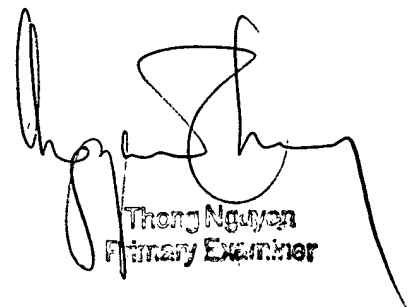
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 703-305-4007. The examiner can normally be reached on M-F 8:30 AM - 5 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Drew Dunn can be reached on 703-305-0024. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.



Arnel C. Lavarias
June 18, 2003



Thong Nguyen
Primary Examiner